Abstract

A process for producing a thermal barrier coating, in which organometal complexes of zirconium and at least one stabilising element selected from the group of the alkaline earth metals or rare earths are provided as starting substances, the starting substances are evaporated by heating and the coating gases which are generated in this way are transported to a component (4) to be coated, which is heated at a deposition temperature, where they are broken down so that a layer (1) is deposited, in which process, in order to produce a thermal barrier coating (1) with a columnar structure and a sufficient layer thickness, the starting substances are heated, at a process pressure of 0.5 to 50 mbar, to at most 250°C so that the coating gases are formed, and the coating gases are transported to the component (4) to be coated, the surface of which is heated at a deposition temperature of between 300°C and 1100°C (Fig. 1).

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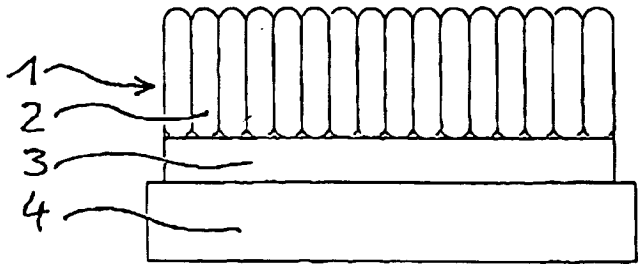
(54) Title: METHOD FOR PRODUCING A HEAT INSULATING LAYER

(54) Bezeichnung: VERFAHREN ZUR HERSTELLUNG EINER WÄRMEDÄMMSCHICHT



(57) Abstract

The invention relates to a method for producing a heat insulating layer. According to said method metallo-organic complexes of zirconium and at least one stabilizing element from the alkaline earth or rare-earth metals are used as starting material. The starting materials are evaporated by heating and the coating gases generated in this way are transported to a component (4) to be coated which is heated to a deposition temperature. The gases are then broken down such that a layer (1) is deposited on said component. To produce a heat insulating layer (1) with a columnar structure and of sufficient thickness the starting materials are heated at a process pressure of between 0.5 and 50 mbar to maximally 250 °C such that coating gases are produced and said coating gases are then transported to the component (4) to be coated whose surface is heated to a deposition temperature of between 300 °C and 1,100 °C.